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COMMENT

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Transphobia in the United Kingdom: a public health crisis

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Abstract

Background The moral panic surrounding trans, non-binary, and gender diverse (TGD) lives in the United Kingdom (UK) has been incited by high-level political and government actors and exacerbated by pervasive misinformation in social and press media. This hostile environment contributes to increasing interpersonal violence and social exclusion experienced by TGD people. Structural and interpersonal discrimination—conceptualised as minority stress—is understood to elicit physiological and psychological stress responses that predispose TGD individuals to a range of adverse health outcomes, including cardiovascular disease, and risk behaviours such as alcohol use.

Main body Health disparities among TGD people in the UK are driven by a combination of minority stress, barriers to general healthcare, and disadvantage across multiple social determinants of health. Limited access to gender-affirming healthcare compounds these disparities, contributing to stark differences in morbidity and mortality relative to cisgender populations. Preventive healthcare engagement is also disproportionately low among TGD individuals, further exacerbating long-term health risks. The intersection of social exclusion, policy-driven discrimination, and systemic healthcare inequities places TGD people at significant and potentially increasing risk of poor health outcomes.

Conclusions The health disparities faced by TGD people in the UK constitute a real-time public health crisis that demands urgent and sustained intervention. TGD people must be central to shaping the strategic direction of a coordinated and adequately resourced response to these harms.

Keywords Hate crime, Healthcare access, Minority stress, Non-binary, Public health, Public health crisis, Transgender, Transphobia, United Kingdom

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Background

A public health crisis, though variably defined, is typically characterised by extraordinary human activity or a natural occurrence of sufficient scale or volatility to pose an imminent threat to a population's ability to maintain good health and prevent disability [1, 2] Transphobia describes antipathy and associated violence towards or exclusion of individuals whose gender identity or expression is incongruous with their sex registered at birth, collectively termed transgender (trans), non-binary and gender diverse (TGD) people. Informed by clinical and public health expertise and an extensive review of evidence, this article outlines the crisis state of transphobia in the United Kingdom (UK) and its relevance to health. It calls for an immediate coordinated national response to mitigate the harm associated with systemic transphobia in the UK.

Transphobic hostility in the UK

TGD people are a small minority in the UK and globally. Only 0.5% of respondents to the 2021 national census for England and Wales reported that their gender identity differed from their birth-registered sex [3]. In recent years, greater visibility of TGD communities has been met with increasing, often violent, discrimination and societal exclusion [4]. Viewed through a socio-ecological lens, transphobia in the United Kingdom can be conceptualised topologically as three nested hostile environments (i.e., macro-, meso- and microsystems), where larger environments influence activity in those within them [5].

The macrosystem includes both policy and legislative landscapes, which operate in a national culture with declining rates of liberal views towards TGD people [6]. In 2022, the Gender Recognition Reform (Scotland) Bill sought to allow TGD people to autonomously declare their gender identity without medical oversight. This is in line with Yogyakarta Principle 32, which calls on states to depathologise minoritised sexual and gender identities [7]. However, after an overwhelming majority passed the Bill in the Scottish Parliament, the UK Government took unprecedented action under Sect. 35 of the Scotland Act 1998 to deny TGD people in Scotland this right.

In 2024, the Health and Equalities Acts (Amendment) Bill was introduced to British Parliament [8]. It sought to: (1) criminalise the provision of puberty-blocking medication to TGD youth, (2) prevent TGD children from living in their affirmed gender through social transition, and (3) remove trans women from "single-sex" spaces [8]. National policies also exclude TGD people from education [9] and sports [10, 11], with recent consultations threatening to erase TGD people from state school curricula [12] and further restrict access to healthcare through amendments to the UK National Health Service (NHS) Constitution [13]. The former United Nations Independent Expert on protection against violence and discrimination based on sexual orientation and gender identity (UN IE SOGI) expressed "deep concern" surrounding the "toxic [transphobic] political discourse" he observed in the UK in 2023 [14].

In a landmark judgment delivered in April 2025, the UK Supreme Court issued a unanimous ruling in For Women Scotland Ltd v The Scottish Ministers, clarifying its interpretation of the terms "sex" and "woman" under the Equality Act 2010. The Court held that "sex" refers exclusively to "biological sex," which it defined as synonymous with sex assigned at birth. This definition effectively excludes TGD people from legal recognition in single-sex spaces, even where they have a Gender Recognition Certificate [15]. It may now permit, or even compel, the legal exclusion of TGD people from gender-congruent services—including domestic violence refuges, hospital wards, and bathroom facilities—undermining access to essential care, support, and protection [15]. This ruling will have potentially devastating consequences for the health, safety, and rights of TGD communities.

Transphobic national policies and political scapegoating undoubtedly negatively influence the beliefs and behaviours of actors in smaller systems. The mesosystem comprises social and press media in the UK, where a rapid and continuing increase in stigmatising coverage of TGD people has been observed [16–18]. Compared to 2012, there were 23 times as many mentions of TGD children in British newspapers in 2018–2019, with an increase in vitriolic language over time [16, 19]. Similarly, TGD people are increasingly the subject of dehumanising social media discourse and are victimised by gender critical cyberbullying, negatively impacting mental health [20, 21].

The microsystem refers to transphobic interactions between individuals. In 2018, more than half of young trans respondents to a national Stonewall survey had experienced a hate crime in the past year [22]. Since then, estimates of police-reported transphobic hate crimes have increased by 200% [23]. Hate crimes based on gender minority status are more likely to involve enacted or threatened physical violence than crimes motivated by other minoritised characteristics [23]. Moreover, the results from a TransActual UK survey demonstrated that interpersonal transphobia is alarmingly commonplace, with experiences of transphobia from strangers (e.g., on public transport or when accessing goods and services), colleagues and family, each reported by a majority of respondents [21].

Transphobia and ill health

Gender minority stress theories formalise the association between discrimination experienced by TGD people and

ill health [24–26]. In short, they propose that exposure to enacted, anticipated or internalised transphobia brings about a physiological stress response predisposing to or exacerbating physical illness and psychosocial conditions, which are associated with a greater prevalence of mental illness and participation in health risk behaviours [24–26]. This is similar to the mechanism through which racism contributes to ill health in people from the Global Majority [27]. There is robust cross-sectional and longitudinal evidence from the UK and abroad supporting the role of minority stress in depression, suicidal ideation or behaviour, smoking, problematic alcohol use and other health conditions [28–33]. The burden of minority stress is not experienced uniformly across TGD populations. For example, TGD people from Global Majority backgrounds are multiply marginalised and often experience more transphobia [34].

Poor education among, and active transphobic discrimination from, healthcare providers both contribute to minority stress and encourage healthcare avoidance or delay, which has been associated with poorer general health, non-suicidal self-injury, suicidality, and sub-optimal adherence to a range of preventive and treatment services, including cervical cancer screening in the UK [35–38]. Transphobia also brings about disparities in the wider determinants of health. With an income gap of 14% relative to their cisgender (gender identity corresponds to birth-registered sex) counterparts, TGD people in the UK experience considerable pay inequality [39]. TGD people also experience a disproportionate burden of intimate partner violence, loneliness, underemployment, and homelessness or precarious housing [21, 22, 40, 41]. Moreover, transphobia-related barriers to physical activity may contribute to the greater prevalence and severity of non-communicable diseases among TGD people [42, 43].

Health disparities experienced by TGD people

Historically, TGD health research has disproportionately focused on blood-borne viruses (e.g., HIV) and associated risk factors (e.g., substance use) among trans women, highlighting stark inequalities [44–46]. Globally, trans women are estimated to have nearly fifty-fold greater odds of living with HIV when compared to all other genders [47]. A growing body of international evidence now suggests that TGD people experience widening disparities across all health domains [43, 48]. In a large sample of ageing adults, TGD people were more likely than cisgender people to be diagnosed with each of 25 health conditions, including mental illnesses (e.g., dementia or depression), communicable (e.g., viral hepatitis) and non-communicable (e.g., chronic kidney disease) physical illnesses and substance (including tobacco) use disorders [43]. Similar findings have been observed in nationally representative UK samples [49, 50], which have also demonstrated increased mortality among TGD people relative to cisgender people [51].

TGD people face substantial and persistent barriers to equitable healthcare access, despite an often-greater need for support. Data from the 2021 GP Patient Survey identified that TGD respondents were significantly less likely than their cisgender counterparts to report an "overall positive experience" of primary care, frequently citing a lack of trust and confidence in their GP [49]. Compared to cisgender men and women, TGD individuals were more likely to encounter difficulties in securing appointments, and less likely to feel that their needs were recognised, understood, or adequately met, or that they were meaningfully involved in decisions about their care [49]. These findings are corroborated by the Trans Lives Survey, which found that 70% of respondents were impacted by transphobia when accessing general healthcare, and 14% were denied care at least once because of their trans status [21]. Moreover, almost 90% of respondents to the same survey reported they had been impacted by their GP's "lack of trans-specific knowledge," and 57% of respondents reported avoiding their GP when unwell due to feeling misunderstood [21].

Despite accessible best-practice guidance, researchers (and other professionals) in the UK routinely fail to measure gender identity and trans status accurately, often conflating gender identity with measures of sex [52]. When these data are recorded, they are frequently omitted from analysis or reporting. Together with the underfunding of TGD health research and the many barriers to TGD people's participation in general population research, this erasure means we likely do not understand the full extent of these disparities.

Many TGD people have unique health needs related to their gender minority status, which may or may not be related to experiences of gender dysphoria (i.e., distress related to gender incongruence) [53]. Without the opportunity to access timely gender-affirming medical or surgical interventions, TGD people often experience worse mental health [54] and are less likely to engage with preventive healthcare, such as screening for sexually transmitted infections or cervical cancer [55, 56]. In 2022, TransActual UK reported that only 14.8% of survey respondents referred to a gender identity clinic (GIC) after 2017 had attended a first appointment, reflecting the four or more-year waiting times reported elsewhere [57, 58].

Moreover, they found that, on average, participants waited a further year following a first appointment to access gender-affirming hormone therapy [58]. In response to another UK survey, two-thirds of TGD participants disagreed with the statement "I have achieved my gender-affirmation goals" [40]. This gap in service

provision and the lack of supportive mental health care for those awaiting gender-affirming interventions have been implicated in coroner reports following a number of deaths by suicide among young TGD people [59, 60]. The new children and young people's gender services that replace the Gender Identity Development service (GIDS) have so far only resulted in longer waiting times [61].

Further, a 2024 announcement from England's National Health Service (NHS) formalised the decommissioning of puberty suppressing medications for TGD young people, citing "…[insufficient] evidence to support the[ir] safety or clinical effectiveness" [62]. Following this, The Medicines (Gonadotrophin-Releasing Hormone Analogues) (Emergency Prohibition) (England, Wales and Scotland) Order 2024 criminalised the provision or possession of puberty-blocking medication for TGD young people from the private sector in the UK or abroad, a change that has since been extended indefinitely [63].

Notably, no such restrictions were imposed on cisgender young people, who may be prescribed these medicines for precocious puberty. These actions bypassed the normal requirement for consulting a statutory committee. Instead, they were informed by an "independent" review of gender identity services for young people undertaken by Dr Hilary Cass, which has been widely criticised for its highly stigmatising approach and misrepresentation of evidence [64–66]. For example, in the Final Report of the Cass Review, "extreme caution" surrounding social transition is recommended, which denies gender diverse young people a safe environment to live authentically [65].

Lastly, there is a long history of transphobic people seeking to exclude TGD people from health, toilet and changing facilities congruent with their gender identity. Many TGD people avoid using public toilet facilities because of the confrontation they may experience, going so far as to limit their food and drink intake to avoid using facilities, resulting in urinary tract infections and kidney problems [67]. Despite many years of TGD-inclusive NHS guidance around ward placement and no evidence that TGD people pose any threat to cisgender patients [68], draft revisions to the NHS Constitution proposed denying TGD people access to hospital accommodation congruent with their gender identity [13]. Revised statutory guidance on single-sex spaces in the NHS and elsewhere is awaited following an interim update from the Equality and Human Rights Commission in response to the Supreme Court Ruling in April 2025 [69].

Responding to transphobia – a public health and civic duty

For a time, the UK was a European leader in advancing LGBTQ + rights [70]. However, recent years have seen a steady decline in measures of LGBTQ+ (particularly TGD) equality, illustrated by the ILGA Rainbow Map, an assessment and ranking of the legal and policy situation for LGBTQ + people in European countries [70]. Despite achieving the highest score (86.00%) in 2015, the UK now ranks 15th with a score of 51.88% in 2024 [70]. This regression in LGBTQ + rights occurred alongside and as a result of the growing weaponization of TGD rights by the British government, the media, and policymakers. Consequently, a prolonged, resourced, multi-faceted initiative is required to achieve health equity for TGD people. The Equality Act 2010 places a public sector equality duty upon public authorities (e.g., the NHS) in the UK, requiring that they foster good relations between those with and without a particular protected characteristic (e.g., "gender reassignment"), and international human rights law demands that TGD people are protected from violence and discriminatory laws and practices [71]. The following actions are not exhaustive recommendations but aim to illustrate various evidence-based approaches British public authorities can take to combat transphobia.

Advocacy

Public health and clinical professionals are respected, trusted, and often powerful community members trained to positively influence the public. Much like we advocate for racial justice and similarly marginalised groups, we must speak out for TGD people. Transphobic policies related to health and its wider determinants must be challenged. Individuals and professional bodies should critically and publicly respond to policies, position statements and public consultations which threaten to limit the health and rights of TGD people.

Workplace protections

Public authorities, as with all employers, play a key role in protecting the health and wellbeing of their staff. Implementing positive policies to support TGD people in the workplace creates a more inclusive environment. Such policies should detail legal entitlement to medical appointments for gender-affirming care, as well as the protection in place for TGD staff should they be discriminated against. Employers should review their dress codes and estates (e.g., toilet and changing facilities) to ensure that staff can choose those that align with their gender [72].

Research

TGD people should be recognised as a group uniquely underserved by research, and funds proportionate to these disparities ring-fenced to support TGD health research. A national research strategy should be co-produced with TGD stakeholders and TGD people supported to lead the development of UK-specific guidance for ethically conducting research with these populations.

Researchers should follow international guidance in the interim [73].

Large funders and universities should commission peer-developed mandatory training for their grant recipients and staff. This training should cover the diversity within TGD (and wider LGBTQ+) communities, the reasons for and mechanisms by which these communities are systemically excluded from research and health improvement initiatives and evidence-based actions to counteract this. Grantors and research ethics committees should mandate maximally inclusive gender identity and trans status recording, following guidance from the MESSAGE project, now available [74]. Data for those minoritised by these characteristics should always be reported. Where the count of these participants is too small to be integrated into the primary analyses, their data should be presented separately to allow for future meta-analyses. Researchers should ensure that TGD people are proportionately represented on steering committees or groups of experts by lived or living experience in all research, not only studies specific to TGD status.

Community services

The LGBTQ + community and advocacy sector is a source of uniquely qualified experts with professional and living experience who have the trust of TGD communities. Through investing in partnership with these organisations, public health teams can learn from their inclusive practices and ensure meaningful community involvement in developing intelligence documents, strategies and interventions. Where feasible, LGBTQ + sector organisations with adequate TGD representation among staff should be favoured over other providers when designing services for TGD people who have expressed a preference for specialist services for specific health needs such as alcohol reduction [40] and cervical cancer screening [37]. LGBTQ + sector organisations may also be assets in co-producing peer-led resilience interventions for TGD individuals (e.g., social prescribing) or health-promoting social spaces to facilitate community connectedness, a known buffer against minority stress [75].

Education and contact

Educational interventions aim to tackle stigma by providing factual information to correct misinformation and challenge false stereotypes and negative attitudes. If well-designed, resourced and co-produced [76], these interventions can bring about prolonged reductions in transphobia. They may be delivered through various means, such as webinars [77], door-to-door canvassing [78], and film [79]. Direct or indirect (e.g., via a pre-recorded video) contact with TGD people is a component of some educational interventions [80, 81]. However, the potentially limited additional benefit this contact confers should be weighed against the burden and risk of harm for TGD people [81, 82]. Local authority public health teams can take these interventions to their communities' cultural groups and anchor organisations (e.g., hospitals and schools). Moreover, these interventions must be integrated meaningfully into undergraduate and postgraduate curricula for healthcare professionals to reduce barriers to healthcare created by discrimination from clinicians [83–85].

Legislative and policy change

The benefits of the aforementioned interventions can only be fully realised if they are delivered alongside legislative and policy changes that can bring about a cultural shift towards TGD inclusion [76]. Recent British policymaking has mirrored media bias, often prioritising the views of transphobic individuals and organisations. Policymakers must instead centre the voice of TGD people with lived experience.

Recent UK policies have restricted TGD people's lives considerably, limiting access to healthcare [13, 62], education [9, 12], employment [39], and sports [10]. Regressive policies must be abolished with immediate effect, and amendments made to the Equality Act 2010 to strengthen TGD people's protection from discrimination. This may include revising the protected characteristic "gender reassignment" to "trans or non-binary status or history" and clarifying "sex" as a complex and mutable characteristic.

At the time of writing, only 21 countries provide some degree of legal recognition of non-binary genders [86, 87]. The former UN IE SOGI argued this fuels "discrimination, exclusion and bullying" and "denial of the right to health" [88] as the state's marginalisation implicitly validates discrimination from the general population [89]. The Gender Recognition Act 2004 must be demedicalised and further revised to include a "third" gender option for those with non-binary identities [90, 91]. Such change could challenge cultural cisgenderism, particularly among those who deny the existence of genders outside the "traditional" binary, destigmatising TGD lives.

Conclusion

This article demonstrates the scale of transphobic hostility among policymakers, in the media, and within the general population of the UK. By outlining the various mechanisms through which such hostility is deleterious to the health of TGD people and summarising the stark associated inequalities in health and its wider determinants, we can conclude that transphobia has precipitated a public health crisis for TGD people in the UK. To date, local and national public health surveillance and strategy have failed to adequately consider the needs of TGD communities [92, 93]. Public health professionals

are dutybound under the Equality Act 2010 and by their commitment to equitably safeguard the health of the whole population, to make an immediate and concerted effort to address these disparities [94].

Abbreviations

GAMI	Gender-affirming medical intervention
GIC	Gender identity clinic
GP	General Practitioner
HIV	Human immunodeficiency virus
LGBTQ+	Lesbian, gay, bisexual, transgender, queer and other people minoritised based on their sex, sexual orientation and/or gender identity
MESSAGE	Medical Science Sex and Gender Equity (project)
NHS	National Health Service
TGD	Transgender (trans), non-binary and gender diverse
UK	United Kingdom
UN IE SOGI	United Nations Independent Expert on protection against violence and discrimination based on sexual orientation and gender identity

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References

1. Massachusetts Emergency Management Agency. Public Health Emergencies. https://www.mass.gov/info-details/public-healthemergencies# introduction-(accessed April 13, 2024).
2. Nelson C, Lurie N, Wasserman J, Zakowski S. Conceptualizing and defining public health emergency preparedness. Am J Public Health 2007;97:S9–11.
3. Gender identity, England and Wales. Census 2021 [Internet]. Office for National Statistics. 2023 [cited 2024 Apr 23]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/genderidentity/bulletins/genderidentityenglandandwales/census2021
4. Strangio C. Trans Visibility is Nice. Safety is Even Better. The New York Times [Internet]. 2024 Feb 15 [cited 2024 Dec 25]; Available from: https://www.nytimes.com/2024/02/15/opinion/trans-visibility-legislative-rights.html
5. Bronfenbrenner U. Toward an experimental ecology of human development. Am Psychol. 1977;32:513–31.
6. Clery E. A liberalisation in attitudes? In: Frankenburg S, Clery E, Curtice J, editors. British Social Attitudes: The 40th Report [Internet]. London: National Centre for Social Research; 2023 [cited 2024 Apr 23]. Available from: https://natcen.ac.uk/sites/default/files/2023-09/BSA%2040%20Moral%20issues.pdf
7. The Yogyakarta Principles plus 10 [Internet]. The Yogyakarta Principles. 2017 [cited 2024 May 5]. Available from: https://yogyakartaprinciples.org/
8. Truss E, Patel P, Paisley I, Dolye-Prince J, Johnson C, Fletcher N et al. Health and Equality Acts (Amendment) Bill [Internet]. London: House of Commons; Dec 6, 2023. Available from: https://publications.parliament.uk/pa/bills/cbill/58-04/0035/230035.pdf
9. Department for Education. Gender Questioning Children: Non-statutory guidance for schools and colleges in England (Draft for consultation) [Internet]. London. 2023 Dec. Available from: https://consult.education.gov.uk/equalities-political-impartiality-anti-bullying-team/gender-questioning-children-proposed-guidance/supporting_documents/Gender%20Questioning%20Children%20%20nonstatutory%20guidance.pdf
10. United Kingdom Athletics. Transgender Eligibility in Athletics in the United Kingdom: Principle Statement [Internet]. Birmingham. 2023 Mar. Available from: https://www.uka.org.uk/wp-content/uploads/2023/03/TG-and-DSD-Principle-Statements-March-2023-final.docx
11. UK Parliament POST. POSTNOTE 683: Performance, Inclusion and Elite Sports - Transgender Athletes [Internet]. London; 2022 Oct. Available from: https://researchbriefings.files.parliament.uk/documents/POST-PN-0683/POST-PN-0683.pdf
12. Department for Education. Review of the Relationships Education, Relationships and Sex Education (RSE) and Health Education statutory guidance [Internet]. London. 2024 May. Available from: https://consult.education.gov.uk/rshe-team/review-of-the-rshe-statutory-guidance/supporting_documents/Review%20of%20the%20Relationships%20Education%20Relationships%20and%20Sex%20Education%20RSE%20and%20Health%20Education.pdf
13. Department of Health and Social Care. NHS Constitution: 10 year review [Internet]. London. 2024 May. Available from: https://www.gov.uk/government/consultations/nhs-constitution-10-year-review/nhs-constitution-10-year-review
14. Madrigal-Borloz V. Country visit to the United Kingdom of Great Britain and Northern Ireland (24 April – 5 May 2023): End of mission statement. New York; 2023 May.
15. Supreme Court UK. For Women Scotland Ltd (Appellant) v The Scottish Ministers (Respondent) [Internet]. 2025 [cited 2025 Apr 23]. Available from: https://supremecourt.uk/cases/uksc-2024-0042
16. IPSO. Mediatique. Examining trends in editorial standards in coverage of transgender issues [Internet]. London; 2020 Nov. Available from: https://www.ipso.co.uk/media/1986/mediatique-report-on-coverage-of-transgender-issues.pdf
17. John T. Anti-trans rhetoric is rife in the British media. Little is being done to extinguish the flames. CNN [Internet]. 2021 Nov 9 [cited 2024 May 21]; Available from: https://edition.cnn.com/2021/10/09/uk/uk-trans-rights-gender-critical-media-intl-gbr-cmd/index.html
18. Hansford A. Right-wing media use Cass Report to justify violence against parents of trans youth. Pink News [Internet]. 2024 Apr 30 [cited 2024 Jun 3]; Available from: https://www.thepinknews.com/2024/04/30/cass-report-violence-against-parents/
19. Mermaids Press. EXCLUSIVE: Mermaids' research into newspaper coverage on trans issues [Internet]. Mermaids. 2019 [cited 2024 May 3]. Available from: https://mermaidsuk.org.uk/news/exclusive-mermaids-research-into-newspaper-coverage-on-trans-issues/
20. Evelyn S, Clancy EM, Klettke B, Tatnell R. A phenomenological investigation into cyberbullying as experienced by people identifying as transgender or gender diverse. Int J Environ Res Public Health. 2022;19:6560.
21. TransActual. Trans lives survey 2021: Enduring the UK's hostile environment [Internet]. 2021. Available from: https://static1.squarespace.com/static/5e8a0a6bb02c73725b24dc9d/t/6152eac81e0b0109491dc518/1632824024793/Trans+Lives+Survey+2021.pdf
22. Bachmann CL, Gooch B. LGBT in Britain: Hate Crime And Discrimination [Internet]. Manchester; 2017. Available from: https://www.stonewall.org.uk/system/files/lgbt_in_britain_hate_crime.pdf
23. Flatley J. Hate crime, England and Wales, 2022 to 2023 [Internet]. United Kingdom Government Home Office. 2023 [cited 2023 Oct 18]. Available from: https://www.gov.uk/government/statistics/hate-crime-england-and-wales-2022-to-2023/hate-crime-england-and-wales-2022-to-2023
24. Streed CG, Beach LB, Caceres BA, Dowshen NL, Moreau KL, Mukherjee M et al. Assessing and addressing cardiovascular health in people who are transgender and gender diverse: A scientific statement from the American heart association. Circulation. 2021;144.

25. Hendricks ML, Testa RJ. A conceptual framework for clinical work with transgender and gender nonconforming clients: an adaptation of the minority stress model. Prof Psychol Res Pr. 2012;433:460–7.
26. Lefevor GT, Boyd-Rogers CC, Sprague BM, Janis RA. Health disparities between genderqueer, transgender, and cisgender individuals: an extension of minority stress theory. J Couns Psychol. 2019;66:385–95.
27. Clark R, Anderson NB, Clark VR, Williams DR. Racism as a stressor for African Americans: A biopsychosocial model. Am Psychol. 1999;54:805–16.
28. Kcomt L, Evans-Polce RJ, Boyd CJ, McCabe SE. Association of Transphobic discrimination and alcohol misuse among transgender adults: results from the U.S. Transgender survey. Drug Alcohol Depend. 2020;215:108223.
29. Nuttbrock L, Bockting W, Rosenblum A, Hwahng S, Mason M, Macri M et al. Gender abuse, depressive symptoms, and substance use among transgender women: A 3-Year prospective study. Am J Public Health. 2014;1044:2199–206.
30. Pellicane MJ, Ciesla JA. Associations between minority stress, depression, and suicidal ideation and attempts in transgender and gender diverse (TGD) individuals: systematic review and meta-analysis. Clin Psychol Rev. 2022;91:102113.
31. Gosling H, Pratt D, Montgomery H, Lea J. The relationship between minority stress factors and suicidal ideation and behaviours amongst transgender and gender non-conforming adults: A systematic review. J Affect Disord. 2022;303:31–51.
32. Davies EL, Ezquerra-Romano I, Thayne B, Holloway Z, Bayliss J, O'Callaghan S, et al. Discrimination, gender dysphoria, drinking to cope, and alcohol harms in the UK trans and non-binary community. Alcohol and alcoholism, 2024;59(1):agad060. https://doi.org/10.1093/alcalc/agad060
33. Drabish K, Theeke LA. Health impact of stigma, discrimination, prejudice, and Bias experienced by transgender people: A systematic review of quantitative studies. Issues Ment Health Nurs. 2022;43:111–8.
34. Millar K, Brooks CV. Double jeopardy: minority stress and the influence of transgender identity and race/ethnicity. Int J Transgend Health. 2021;1–16;23:133–48.
35. Lee H, Operario D, Yi H, Choo S, Kim J-H, Kim S-S. Does discrimination affect whether transgender people avoid or delay healthcare?? A nationwide Cross-sectional survey in South Korea. J Immigr Minor Health. 2022;24:170–7.
36. Seelman KL, Colón-Diaz MJP, LeCroix RH, Xavier-Brier M, Kattari L. Transgender noninclusive healthcare and delaying care because of fear: connections to general health and mental health among transgender adults. Transgend Health. 2017;2:17–28.
37. Berner AM, Connolly DJ, Pinnell I, Wolton A, MacNaughton A, Challen C et al. Attitudes of transgender men and non-binary people to cervical screening: a cross-sectional mixed-methods study in the UK. Br J Gen Pract. 2021;71:e614–25.
38. Treharne GJ, Carroll R, Tan KKH, Veale JF. Supportive interactions with primary care Doctors are associated with better mental health among transgender people: results of a nationwide survey in Aotearoa/New Zealand. Fam Pract. 2022;39:834–42.
39. Slawson N, LGBTQ Employees Are Paid 16% Less Than Straight Colleagues, Research Suggests. HuffPost [Internet]. 2019 Jul 2 [cited 2024 Jun 3]; Available from: https://www.huffingtonpost.co.uk/entry/lgbtq-employees-paid-less_uk_5d1a4672e4b07f6ca581c68c?guccounter=1%26guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8%26guce_referrer_sig=AQAAADSMZfj-kLPGzJri5IXQqbip-HQsMmQEDJibKbvC3K5hIiH5BxMWLWbl54b1u5aFilPTmYg_ZrB06lNlzs8cvqAtUbxoJXOyQjUBqs3gTCWQR5jJsBpnYUuqqYdUYZzvxEZMmUrQmrqLxxNS3eDYkRYkSlmS5744CZc7Y-BfRQg-.
40. Connolly DJ, Thayne B, Bayliss J, Hughes X, Holloway Z, O'Callaghan S, et al. Transgender and non-binary People's experiences with alcohol reduction in the UK: A cross-sectional study. J Subst Use Addict Treat. 2024;158:209246.
41. Peitzmeier SM, Malik M, Kattari SK, Marrow E, Stephenson R, Agenor M, et al. Intimate partner violence in transgender populations: systematic review and Meta-analysis of prevalence and correlates. Am J Public Health. 2020;110:e1–14.
42. Barbee H, Deal C, Gonzales G. Anti-Transgender Legislation—A public health concern for transgender youth. JAMA Pediatr. 2022;176:125.
43. Hughto JMW, Varma H, Babbs G, Yee K, Alpert A, Hughes L et al. Disparities in health condition diagnoses among aging transgender and cisgender medicare beneficiaries, 2008–2017. Front Endocrinol. 2023;14.
44. Connolly D, Davies E, Lynskey M, Maier L, Ferris J, Barratt M et al. Differences in alcohol and other drug use and dependence between transgender and cisgender participants from the 2018 Global Drug Survey. LGBT Health. 2022;9:534–42.
45. Hughto JMW, Quinn EK, Dunbar MS, Rose AJ, Shireman TI, Jasuja GK. Prevalence and co-occurrence of alcohol, nicotine, and other substance use disorder diagnoses among US transgender and cisgender Adults. JAMA Netw Open [Internet]. 2021;4:e2036512–e2036512. Available from: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2775924.
46. Reisner SL, Poteat T, Keatley JA, Cabral M, Mothopeng T, Dunham E et al. Global health burden and needs of transgender populations: a review. The Lancet [Internet]. 2016 [cited 2021 Nov 8];388:412–36. Available from: http://www.thelancet.com/article/S014067361600684X/fulltext
47. Baral SD, Poteat T, Strömdahl S, Wirtz AL, Guadamuz TE, Beyrer C. Worldwide burden of HIV in transgender women: a systematic review and meta-analysis. Lancet Infect Dis. 2013;13:214–22.
48. Feir D, Mann S. Temporal trends in mental health in the united States by gender identity, 2014–2021. Am J Public Health. 2024;114:523–6.
49. Saunders CL, Berner A, Lund J, Mason AM, Oakes-Monger T, Roberts M, et al. Demographic characteristics, long-term health conditions and healthcare experiences of 6333 trans and non-binary adults in England: nationally representative evidence from the 2021 GP patient survey. BMJ Open. 2023;13:e068099.
50. Watkinson RE, Linfield A, Tielemans J, Francetic I, Munford L. Gender-related self-reported mental health inequalities in primary care in England: a cross-sectional analysis using the GP patient survey. Lancet Public Health. 2024;9:e100–8.
51. Jackson SS, Brown J, Pfeiffer RM, Shrewsbury D, O'Callaghan S, Berner AM, et al. Analysis of mortality among transgender and gender diverse adults in England. JAMA Netw Open. 2023;6:e2253687.
52. National Institute for Health and Care Research. Randomised controlled trial participants: diversity data report. London: Nov; 2022.
53. Coleman E, Radix AE, Bouman WP, Brown GR, de Vries ALC, Deutsch MB, et al. Standards of care for the health of transgender and gender diverse people, version 8. Int J Transgend Health. 2022;23:S1–259.
54. Tordoff DM, Wanta JW, Collin A, Stepney C, Inwards-Breland DJ, Ahrens K. Mental health outcomes in transgender and nonbinary youths receiving gender-affirming care. JAMA Netw Open. 2022;5:e220978.
55. Pletta DR, Mayer KH, Chen JT, Hughto JMW, Keuroghlian AS, Radix AE et al. Gender-Affirming hormone therapy is associated with increased odds of screening for sexually transmitted infections in a clinical cohort of transgender and nonbinary adults. Transgend Health. 2024;9:508–15.
56. Fleming J, Grasso C, Mayer KH, Reisner SL, Potter J, Streed CG. Gender-Affirming Hormone Therapy and Cervical Cancer Screening Rates in Transgender Men and Nonbinary People: A Cross-Sectional Study from a Boston Community Health Center. LGBT Health. 2024;11:514–21.
57. UK service wait times [Internet]. Gender Construction Kit. [cited 2024 Jun 1]. Available from: https://genderkit.org.uk/resources/wait-times/
58. Grassian T. Transition Access Survey 2022 [Internet]. London; 2022. Available from: https://www.transactual.org.uk/wp-content/uploads/TransitionAccessSurvey2022.pdf
59. The shocking rise of deaths among young trans people. Good Law Project [Internet]. 2024 Jun 21 [cited 2024 Jun 28]; Available from: https://goodlawproject.org/rise-of-deaths-young-trans-people/
60. Clarke S. Alice Litman: Prevention of future deaths report [Internet]. 2023 Dec. Available from: https://www.judiciary.uk/prevention-of-future-death-reports/alice-litman-prevention-of-future-deaths-report/
61. Stewart J, Palmer J. NHS England update on work to transform gender identity services [Internet]. NHS England. 2024 [cited 2025 Feb 4]. Available from: https://www.england.nhs.uk/long-read/nhs-england-update-on-work-to-transform-gender-identity-services/#:~:text=Furthermore%2C%20NHS%20England%20is%20also,with%20the%20specialist%20gender%20service
62. NHS England. Clinical policy: puberty suppressing hormones (PSH) for children and young people who have gender incongruence/gender dysphoria [Internet]. 2024 Mar. Available from: https://www.england.nhs.uk/publication/clinical-policy-puberty-suppressing-hormones/
63. Department of Health and Social Care. Ban on puberty blockers to be made indefinite on experts' advice [Internet]. 2024 [cited 2025 Feb 4]. Available from: https://www.gov.uk/government/news/ban-on-puberty-blockers-to-be-made-indefinite-on-experts-advice
64. Cass H. The Cass Review: Independent review of gender identity services for children and young people: Interim report [Internet]. London; 2022 Feb. Available from: https://cass.independent-review.uk/wp-content/uploads/2022/03/Cass-Review-Interim-Report-Final-Web-Accessible.pdf
65. Cass H. The Cass Review: Independent review of gender identity services for children and young people: Final Report [Internet]. London; 2024 Apr.

Available from: https://cass.independent-review.uk/wp-content/uploads/2024/04/CassReview_Final.pdf
66. Horton C. The Cass review: Cis-supremacy in the UK's approach to healthcare for trans children. Int J Transgend Health. 2024;1–25.
67. James SE, Herman JL, Rankin S, Keisling M, Mottet L, Anafi M. Executive Summary of the Report of the 2015 U.S. Transgender Survey. Washington, DC; 2016 Dec.
68. Rob NHS, Same-Sex. Accommodation Survey Dec 2023 – Methods and Responses [Internet]. 2024 Jan. Available from: https://translucent.org.uk/nhs-same-sex-accommodation-survey-dec-2023
69. An interim update on the practical implications of the UK Supreme Court judgment [Internet]. Equality and Human Rights Commission. 2025 [cited 2025 Apr 29]. Available from: https://www.equalityhumanrights.com/media-centre/interim-update-practical-implications-uk-supreme-court-judgment
70. Rainbow Europe [Internet]. ILGA Europe. 2024 [cited 2024 May 22]. Available from: https://www.ilga-europe.org/rainbow-europe/
71. Ending violence and discrimination against lesbian, gay, bisexual, transgender, and intersex people [Internet]. Geneva. 2015 Sep. Available from: https://www.who.int/news/item/29-09-2015-ending-violence-and-discrimination-against-lesbian-gay-bisexual-transgender-and-intersex-people
72. Transforming the Workplace. A TUC guide for trade union activists on supporting trans members. 2016 Nov.
73. Adams N, Pearce R, Veale J, Radix A, Castro D, Sarkar A, et al. Guidance and ethical considerations for undertaking transgender health research and institutional review boards adjudicating this research. Transgend Health [Internet]. 2017 [cited 2021 Sep 4];2:165. Available from: https://doi.org/10.1089/trgh.2017.0012
74. Medical Science Sex and Gender Equity [Internet]. 2023 [cited 2024 Jun 2]. Available from: https://www.messageproject.co.uk/about/
75. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. Psychol Bull. 2003;129:674–97.
76. FitzGerald C, Martin A, Berner D, Hurst S. Interventions designed to reduce implicit prejudices and implicit stereotypes in real world contexts: a systematic review. BMC Psychol. 2019;7:29.
77. Mizock L, Hopwood R, Casey H, Duhamel E, Herrick A, Puerto G, et al. The transgender awareness webinar: reducing transphobia among undergraduates and mental health providers. J Gay Lesbian Ment Health. 2017;21:292–315.
78. Broockman D, Kalla J. Durably reducing transphobia: A field experiment on door-to-door canvassing. Science (1979). 2016;352:220–4.
79. Taracuk MD, Koch JM. Use of a media intervention to increase positive attitudes toward transgender and gender diverse individuals. Int J Transgend Health. 2023;24:86–98.
80. Amsalem D, Halloran J, Penque B, Celentano J, Martin A. Effect of a brief social contact video on transphobia and Depression-Related stigma among adolescents. JAMA Netw Open. 2022;5:e220376.
81. Rani N, Samuel AA. Reducing transphobia: comparing the efficacy of direct and indirect contact. Industrial Commercial Train. 2019;51:445–60.
82. Mehta N, Clement S, Marcus E, Stona A-C, Bezborodovs N, Evans-Lacko S, et al. Evidence for effective interventions to reduce mental health-related stigma and discrimination in the medium and long term: systematic review. Br J Psychiatry. 2015;207:377–84.
83. Muschialli L, Coduri-Fulford S, Garbett Z, Connolly DJ. Twelve tips for LGBT+-inclusive undergraduate and postgraduate medical education. Med Teach. 2024;47:43–9.
84. Ruprecht KA, Dunlop WA, Wah E, Phillips C, Martin SJ. Intergroup contact improves medical student attitudes and skill in transgender health care. Transgend Health. 2024;9:162–73.
85. Jecke L, Zepf FD. Delivering transgender-specific knowledge and skills into health and allied health studies and training: a systematic review. Eur Child Adolesc Psychiatry. 2024;33:1327–54.
86. Legal recognition of non-binary gender [Internet]. Equaldex. 2024 [cited 2024 Jun 3]. Available from: https://www.equaldex.com/issue/non-binary-gender-recognition
87. Trans Rights Map: Europe and Central Asia [Internet]. TGEU. 2024 [cited 2024 Jun 2]. Available from: https://www.gov.scot/publications/hate-crime-and-public-order-scotland-act-factsheet/
88. Madrigal-Borloz V. Report of the Independent Expert on protection against violence and discrimination based on sexual orientation and gender identity [Internet]. 2018 Jul. Available from: https://documents.un.org/doc/undoc/gen/n18/220/41/pdf/n1822041.pdf?token=QjktBXm1qMn1CNybAv%26fe=true
89. Duffy S. Contested subjects of human rights: Trans- and Gender-variant subjects of international human rights law. Mod Law Rev. 2021;84:1041–65.
90. Valentine V. Non-binary people's experiences in the UK [Internet]. Edinburgh; 2016. Available from: https://www.scottishtrans.org/wp-content/uploads/2016/11/Non-binary-report.pdf
91. Newman HJH, Peel E. An impossible dream'? Non-binary People's perceptions of legal gender status and reform in the UK. Psychol Sex. 2022;13:1381–95.
92. Harkins C, Hoffman R. Examining the social determinants of LGBT + health and wellbeing: A scoping review of evidence, unmet health needs, and policy recommendations [Internet]. Glasgow; 2024 May. Available from: https://www.gcph.co.uk/assets/000/003/485/Examining_the_social_determinants_of_LGBT__health_and_wellbeing_FINAL_original.pdf?1716892499
93. Joint Strategic Needs Assessments: Assessing provision for the older LGBTQ + population of London [Internet]. London. 2022 Feb. Available from: https://www.openingdoors.lgbt/Handlers/Download.ashx?IDMF=797f40b5-eb3c-44e8-85d4-ac438ccf301b
94. Gruen RL. Physician-Citizens—Public roles and professional obligations. JAMA. 2004;291:94–98.

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